

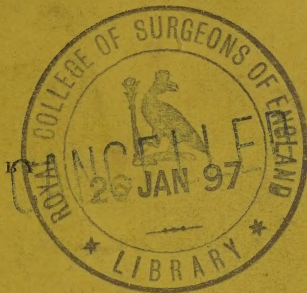
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POPULATION:

ITS

LAW OF INCREASE.



NATHAN ALLEN, M. D., LOWELL, MASS.

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READ AT THE MEETING OF THE WESTERN SOCIAL SCIENCE ASSOCIATION,  
IN CHICAGO, NOVEMBER 12, 1868.

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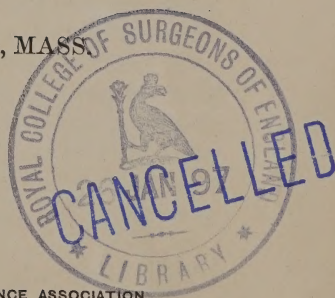


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## POPULATION,—ITS LAW OF INCREASE.

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READ AT THE MEETING OF THE WESTERN SOCIAL SCIENCE ASSOCIATION  
IN CHICAGO, NOVEMBER 12, 1868.\*

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THE increase of Population as governed by fixed laws or principles seems never to have attracted any public attention till near the close of the Eighteenth Century. The French Revolution prevailing at that period, gave rise to some bold and speculative inquiries concerning the progress and perfectibility of man, the origin and extent of human government, as well as the existence and power of a Creator of all things.

In 1793, William Godwin published a work upon Political Justice, respecting the unequal distribution of the good things of this life and the causes of so much poverty, misery and suffering in the world, which must, in the very nature of things, seemingly cast reflections either upon human or divine government. The Rev. Thomas R. Malthus, connected at that time with the University of Cambridge, in an accidental conversation with a friend in respect to the merits of Godwin's views, was prompted to make some criticisms which led to the publication, in 1798, of an "*Essay on the Principle of Population as it Affects the Future Improvement of Society*." This Essay was afterwards greatly improved, and passed through several editions in the form of two large, octavo volumes.

The principles embodied in this work, had at the time, and have since had a most powerful influence. While on the one hand they were readily adopted by large numbers, and have been extensively incorporated into works upon Political Economy, on the other hand, they have been controverted by many of the ablest minds in Great Britain. From the year 1800 to 1830, several works were published,

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\* In a discussion at the close of this convention upon the publication of its proceedings, the Rev. Edward Beecher, D. D., in a speech advocating the measure, remarked that, "The papers read were generally good, but that of Dr. Allen's on the increase of Population, if published at an expense of twenty thousand dollars, would return one thousand fold, so great are the underlying principles of our natural and national life so ably treated in that document."

opposing, criticising and condemning the doctrines of Malthus in the severest way. At the same time many elaborate articles appeared in the quarterly reviews and monthly magazines upon Population, some of them approving and commending these doctrines, while others exposed and denounced them in the most bitter manner.

In 1841, Thomas Doubleday published in London a work entitled, "*The True Law of Population shown to be connected with the Food of the People*;" and, in 1852, Herbert Spencer published in the Westminster Review an able article, introducing a "*New Theory of Population*," deduced from the general law of animal fertility. Neither of these theories has ever made a very great impression on the public, or commanded the confidence of those most interested in this subject. While the doctrines of Malthus have been gradually losing their hold on the public mind, and most important changes in Society have been taking place in respect to the progress, character and destiny of the race, no attention, comparatively, has of late been given to the laws which directly regulate its increase. In fact, for the last thirty years there has been no general or thorough discussion of this subject. But there are new agencies coming into existence, and changes occurring in the status of different communities and nations, that will ere long compel attention to this most important question.

Facts connected with emigration and the intermixture of races, together with census returns, registration reports, mortuary statistics, &c., are constantly coming to light, which demand explanation, and can be satisfactorily accounted for, only by referring them to some fixed laws of human increase. The materials upon which a portion of these facts are based have been accumulating for a long time, while some of them are so new and startling, and are of such a nature and magnitude that they must be investigated. The *rational* of these facts must be brought to the test; the lights of Science challenge such a scrutiny; the interests of an advancing civilization demand it. This will appear evident when we pass in review some of those facts like the following:—It seems from the census and registration reports of France, that the population of that great nation has become almost stationary, and that the number of births there has been steadily decreasing for the last fifty years. At the commencement of the present century the average number of children to each marriage in France was five, but it is estimated that the average number at the present day in the rural districts will not exceed three, and in Paris, not much over two. Now, it is a well



established fact that no nation can increase in population with a much less average than three children to each marriage. In confirmation of the same fact it is found that the birth-rate in France has been reduced to one in thirty-seven persons. It is also an established fact that for any nation to be in a prosperous condition or gain in population, the birth-rate must range between one in thirty to thirty-five; but with a birth-rate less than that—say one in thirty-eight to forty, such a nation, having the usual amount of mortality, must diminish in population. The changes that have already taken place in France cannot be satisfactorily accounted for by the drafting of young men into the army, nor by the emigration of young people out of the country, nor by the diminution of marriages. If the births or birth-rate, therefore, should continue to decrease in France for the next fifty years, as they have for the last half-century, what will be the result?

A similar class of facts is found to prevail with the descendants of the first settlers of New England. The Puritans were originally a prolific people. They had on an average for several successive generations from six to ten children to each married couple, but within the present century, the average has dropped down from six to about three, and the birth-rate of the original stock in some cities has been even less than it is in France. Had not the older cities received recruits from the country or additions from the foreign element, their population would have been seriously affected.

By census returns taken in 1765 and 1865, there are now found only about one-half as many children under fifteen years of age, relatively, to the adult population, as there were one hundred years ago. It is beginning to be admitted that there is, at the present time in most parts of New England, no increase of the strictly native population. This change is not at first very apparent, partly from the fact that a large foreign element is constantly immigrating to its shores, and partly, that this foreign class is wonderfully prolific, having nearly three times as many children as the Americans. This constant addition by immigration and births to the population of New England makes a fair show of increase on paper—but when an analysis is made of its character, it shows at once that all or nearly all this increase arises from foreign descent. If the average number of children among the Americans to each marriage should continue to decrease, so that they will not make good the places of the producing stock, and a larger and larger number of persons every year shall see fit to live a single life, it is evident that the *native* stock must rapidly

diminish and, at no distant day, comparatively *must run out*! Is it possible, says some one, that the Puritan—the best stock that the world ever saw, under what would be considered the best family training, the highest order of educational influences, and the purest religious instruction—should thus *run out* in New England, and give place to a people of foreign origin, with far less intelligence and a religion entirely different? When we come to consider all the causes of this radical change in New England population, it may not seem so surprising.

The Census of the State of New York taken for 1865, discloses some curious facts. The method of taking this Census was different from that of all others in this respect:—that it was taken *by families* with particular reference to children. In answer to the inquiry put to every woman who was or had been married (in all 842,562), how many children she had had, whether present or absent, living or dead,—there were 115,252 women who responded that they never had had a child; 124,317, only one child; 123,319, two, and 108,324, three children. Here we find 471,772,—more than one-half of all the married women in the great State of New York,—who will average only one child and seven-tenths to each woman. These figures include both the foreign and American classes; but, as the foreign have generally the most children, the American compose undoubtedly by far the largest proportion of the families here mentioned. Now, if the law, settled by mortuary statistics, that two-fifths of all children born die before reaching adult life, be applied to these facts, scarcely is one child here raised for each woman—that is, as far as these 471,772 married women in the great State of New York are thus far reported. It is true that a large number of children might afterwards be born to these same married women,—possibly as many as here returned in the census,—but even then that would make an average of only about 2 to each married woman. It should also be borne in mind that these returns of the census include the foreign element as well as the strictly American; and, when it is considered that the former are far more prolific than the latter, it will be seen at once, that the American, at this rate, would not begin to keep the original stock good.

In the County of New York—which is mostly made up of the city—reporting about one-half of its population as foreign—we find this remarkable fact:—While nine hundred and sixty-five American women had each ten children and upwards, there were twenty-eight hundred and fifty foreign women having each ten children and up-



wards—making three times as many. The compiler of this census states that he is convinced that there is, at the present time, no increase of population among the descendents of the first settlers of the State of New York.

There is another class of facts gathered by way of comparison, which is somewhat curious and difficult of solution. If we compare the number of children born by the strictly American, with that of the Irish, the Scotch, the English and the German, the difference is surprising. We find that the latter, both in Europe and in this country, have on an average two, if not three times as many as the former, even though both classes may live in the same locality and under the same general influences.

Again: if we make the comparison between the present generation in New England, and their ancestors living one hundred years ago, we find the number of children at that period averaged two or three times as many as in the same number of families at the present day. Here the comparison is made between a people of the same stock, living on the same ground, under the same climate and free institutions. A most singular fact analogous to these is found stated in the Registration Report of Vermont for 1858. It states that while the producing part of the population, say from the age of fifteen to fifty, was in Vermont almost precisely in the same proportion to those under and over these ages as that in England, the birth-rate in Vermont was one to forty-nine, and in England the same year it was one in thirty-one; and should the foreign element in Vermont be separated, the birth-rate would be still lower—in fact only about one-half as large as that of England. Considering that the comparison here made is between a people—occupying the healthiest part of New England, engaged principally in agricultural pursuits and scattered in settlement—and a population situated as that of England is—living mostly in cities and thick settled places, as well as composed largely of the extremes in society—the result is certainly extraordinary.

Now, how can these various facts be explained? How can they be accounted for upon any well-known theories or principles of population? Why should there be such a difference between the number of children of married people at the present day, and families of the same stock fifty or one hundred years ago? Why should the Irish, the Scotch, the English and the German, living in our country, have two or three times as many children as the same number of our American women? There must be some radical

causes for these changes or differences. It is justly said that the population of New England has been very much affected by constant emigration to the West and elsewhere, but when a careful examination is made as to the actual numbers emigrating, and then, as to what should have been the *natural* increase, it does not account satisfactorily for all the changes in its inhabitants. Moreover it should be borne in mind that the comparison here instituted, is between the same number of married women, whether living now or one hundred years ago, of the same stock, or between the same number of families of different races living at the present time.

It has been alleged by writers upon this subject, that unfavorable climate, bad government, want of food, epidemic diseases, war, want of marriages and prudential considerations, have always been found to be the principal causes in preventing an increase of population. But it will not be pretended for a moment that the four first named causes, viz:—climate, government, famine and pestilence, could have had any effect in the cases here mentioned—and war could not prior to 1860, and then only for a few years; neither could the want of marriages, as the marriage rate has fallen off comparatively but little from former times and is almost equal to that of European nations or of their representatives in this country. Modern times disclose the fact that it is not the number of marriages, but the fruitfulness of this relation that tells on the increase of population. The only remaining cause—*prudential considerations*—cannot be passed over so lightly. These have had their influence in a great variety of ways; in postponing marriage till a later age in life; in regarding the care and expense of children as a burden, as well as in preferring pleasure and fashion to domestic duties and responsibilities. To such an extent has this “prudence” been carried that a great variety of means has been adopted to prevent conception, and in case of pregnancy, to produce abortion. This practice has been carried on so extensively as to affect somewhat the increase of population—partly by its direct effects, but, more indirectly, by its injury to the health and constitution of its victims. But passing by for the present the deep criminality and fearful extent of this practice, why should such a crime become so prevalent in all classes of society—even with married women among the intelligent, the refined and the religious? Why, too, should the *natural instincts of women* be so changed in regard to offspring? Why should so low an estimate be placed upon the value of human life? Why should such a persistent effort be made to defeat one of the most important objects of the marriage institution,



and that, too, by a party of all others most deeply interested? Surely there must have occurred some radical changes in the organization of woman to account for such an unnatural disposition, as well as for this great decrease of population from preceding generations. No such facts can be found in the history of any other civilized people, race, or nation upon the globe.

Having canvassed for many years the questions here raised, from different points of view, and carefully examined the various works published on population, the conviction was forced upon our mind, that some important changes must have occurred in the organization of large numbers of New England women, and that there might have been sufficient causes and agencies operating for a long time in society to produce some such change. An examination into these changes going on in New England society developed in our own mind some new views upon the great laws of human increase. And, if these views hold good here, the laws on which they are based are true everywhere—have existed in all past ages, and will be effective in all coming time. Whatever changes may take place in the body itself or in the external world in its influence upon the human system, the same great law of increase still exists—was a part of the constitution at its creation, and will continue so, as long as it is governed by organic laws.

We are aware that we are here advancing upon ground involving questions the most difficult and complicated that can be found in the whole range of science, of philosophy, of political economy, or of morals—questions that have been discussed by the ablest minds, but still many of them left in doubt and confusion. It may also seem preposterous to think that at this late period in the history of the world any new discovery of a great organic law can be developed in such a field of inquiry; but new discoveries and inventions of the most surprising character are continually being made in other departments of science. It seems to be the order of divine Providence that the great secrets of nature should be disclosed gradually—at different periods in history, and sometimes by very humble agencies.

The question might naturally arise, why this law so fundamental and important should not have been discovered before? We answer that nearly all writers upon this subject were looking principally to other sources for a law of population. In describing the various causes that favored or prevented an increase of the race, some writers have scarcely admitted that the body—the most important agent of all—had anything to do in the matter. Being ignorant themselves

of the science of Physiology, their attention has been turned in every other direction for some cause, agency or influence to explain changes in population, rather than to the primary, fundamental law of human organization itself. And what is most singular, this same law has been applied for more than half a century, with wonderful success, in improving and changing the development as well as character of the animal creation. Look at those domestic animals, the horse, the ox, the cow and the sheep,—what wonderful improvements and changes have been made here within a few years; and never was this process of change going on so effectively as at this very day. Had the same views always prevailed with reference to increase and improvement in the animal kingdom, as have been entertained for more than half a century respecting the human race, viz: that the law of increase depended mainly upon causes extraneous to the organization itself, the wonderful improvements that have been witnessed in domestic animals, would never have taken place. It is true, in the latter case, the law can be applied more readily and extensively, with more immediate and direct effects, but still the general law in both cases is the same.

Before attempting to describe the nature of this law, with the conditions affecting its operation, it may be well to notice briefly the different theories on population that have been promulgated, together with some remarks upon the same. The leading principle of Malthus is, “that population when unchecked increases in a geometrical ratio, while subsistence increases only in an arithmetical ratio.” Because it happened to be ascertained at that time that population in the United States doubled once in about twenty-five years, Malthus assumed that this was a general law applicable to all nations and for all time; whereas, it is a positive fact that some nations have doubled their population once in fifteen years, others in twenty years, and with others it required forty or fifty years. That is, Malthus assumes that the sexual propensity is invariably a *given quantity*, the same everywhere and at all times. It requires no evidence to prove that this assumption is false, contrary to all experience, all facts and the common judgments of mankind.

Again: it was discovered that in Great Britain and in two or three other places, the production of food was not equal to the wants of an increasing population, and, as for the sake of argument or some definite proposition, it was desirable to determine some relative proportion between the two factors, it was assumed that the increase of one was geometrical, while that of the other was arithmetical. Now



no fact in the history of agriculture is more obvious, than that the amount of food produced and available, varies wonderfully according to the differences in the fertility of the soil and modes of cultivation, as well as in the increased exchanges of food obtained by the means of the improvements in manufactures and commerce. So great and variable has this increase in different nations and ages been, that it seems impossible to determine it permanently in figures by any definite ratio.

Upon the hypothesis that population tended to increase much faster than the means of subsistence, Malthus proceeded to collect facts in the history of the world not only to prove the principle, but to show what causes in different ages and nations had operated to prevent this increase. These causes he divides into two classes called "checks—the positive and the preventive." Some of these checks, such as vice, misery, poverty, disease, &c., are of human origin, and result from the violation of physical law, while others, such as famine, plagues, epidemics, earthquakes, &c., might be considered more properly of divine origin. It certainly seems inconsistent with the moral attributes of the Creator that He should establish a law of population that such agencies as are here mentioned, must be employed to regulate it. The "preventive checks" are wholly under human control, and are capable of the greatest possible abuse. There are certain features in Malthus' doctrine of population that have always been revolting to the moral sense of mankind.

According to the theory of Thomas Doubleday, the law of population is connected with food in such a manner, that there is a wonderful power inherent in nature to increase its fecundity or fertility, wherever any species or genus is endangered. He discusses this provision of nature as applied to the vegetable and animal kingdoms under two heads, the *plethoric*, and the *deplethoric* states—the former as unfavorable, and the latter as favorable to fertility. As far as Doubleday explains and applies his theory, it is not only consistent with the great laws of physiology, but, when carried out to its fullest extent, it can receive a complete and satisfactory explanation only by the aid of these laws.

Herbert Spencer has more recently published what he calls a "new theory on population" deduced from the general law of animal fertility. His theory is that an antagonism exists in nature between individualism and reproduction; that matter in its lower forms possesses a stronger power of increase than in all its higher forms; that the capacity of reproduction in animals is in an inverse ratio to their

individuation, and that the ability to maintain individual life and that of multiplication varies also in the same manner. The views of Spencer though expressed in a great profusion of language, and complicated with many obscure points in philosophy, when reduced to the simple, practical tests of science, will be found to have a basis, more or less, in the great laws of physiology. Other writers, as Saddler, Richards, and Fourier have presented various views on population, but neither of them a well-defined, complete and independent theory of itself.

Works upon political economy have treated all these theories with the greatest diversity of statement, affording very little instruction or satisfaction to any one.

In attempting to account for certain anomalous changes going on in the population of New England, the inquiry arose, Has not the human system itself experienced some changes? Have not certain causes been operating through two or three generations with so much power as to affect the development—particularly the relative proportions—of the body itself? For the sake of convenience and illustration, we shall adopt the division made by some writers on the human body into four distinct compartments called temperaments,—

The *first* division, the brain, the spinal column, and nerves of motion and sensation scattered through the body, called the *Nervous Temperament*,—

*Second*: the heart, the lungs and all the blood-vessels in the system, called the *Sanguine Temperament*,—

*Third*: the organs in the abdomen, the stomach, bowels, liver and absorbents, called the *Bilious* or *Lymphatic Temperament*,—

*Fourth*: the muscles, bones, ligaments, constituting the motive power of the system, called the *Muscular Temperament*.

The term temperament, in one sense denotes the result of a mixture or *tempering* of all the qualities, both physical and mental of any individual, but, as used here, it is intended to apply more particularly to the different compartments of the body as connected with health and the laws of human increase. As all the organs in the body are included in one or other of these temperaments, and as every organ, however insignificant or obscure, has a specific work to do in the animal economy, it is necessary that every one of these organs should have its *natural* development and perform its *natural* functions.



The human body in its normal or most healthy state may be compared to a perfect machine made up of a great variety of parts, each part performing its own work and not interfering with that of the others, so that the "wear and tear" will come upon all parts of the machinery alike. Every mechanic will say at once that such a machine, thoroughly constructed and kept in running order, will accomplish for the time being far more work, and last much longer, than one poorly built, not well-balanced in its parts, and continually getting out of order. This subject is beautifully illustrated in the teachings of the Apostle Paul where he says, "The body is not one member but many. . . . God hath set the members of every one of them in the body as it hath pleased him. . . . The eye cannot say unto the hand, I have no need of thee; nor again the head to the feet, I have no need of you. And whether one member suffer, all the members rejoice with it, or one member be honored, all the members rejoice with it." We are here taught, if there is a seeming difference in the importance of the functions and relations of these members, they are all necessary in making up the whole body, and the rights of each must be respected.

And if this law is true when applied to individual members of the body, it must hold good with still greater force, when applied to a whole class of organs included under the head of one of the temperaments. Here is the great trouble with the human system. These temperaments are not equally developed; are not well-balanced; do not assist each other in their respective functions, by doing severally their own proper work, but constantly interfere, thus violating the laws of nature. In carrying on the operations of the animal economy, it is clearly the design of nature that there should be a perfect union or harmony of these temperaments—that such was the development of the human body at its creation, and that in such a state, it is found most exempt from disease, is capable of performing the greatest amount of labor, of receiving the greatest amount of enjoyment, as well as reaching its greatest longevity.

*It is here, at this very point, where starts or is grounded the great law of human increase upon a perfect development of all the organs in the body—constituting a perfect union or harmony between the temperaments.* This presupposes that all other conditions are favorable, such as the age, the health, the union and adaptation of the married parties; that, with this standard of organization, and provided the laws of nature are not violated or interfered with, there will uniformly be found not only the greatest number of children, but they will be endowed with the highest amount of physical vigor and health.

It is true, there may be a great variety of conditions, or powerful factors that enter largely into its operations and modify essentially its results, but, here in the perfect organization of the human system, has this great law of population its germ, its seat and foundation. The common sense of mankind, which is applied to the practical duties of life, as well as to the numerous facts in science, would certainly incline us to believe that the body itself, in its various states and ever-changing forms, must constitute the most prominent, if not the principal agency, in the functions of increase. To establish a general law which is to have the greatest possible agency in developing the nature of a body and controlling its very existence, the presumption is that such a law must be evolved, in some way, from the designs had in the creation of that body. Such has been found by experience and observation to be the fact in reference to the great laws that pervade the whole vegetable and animal kingdoms. And though there may be objects and agencies extraneous to the body itself, that may have a powerful influence over its development, yet the most important law of all—the law that shapes its life, character and destiny—must have its seat and foundation somewhere in the system itself. Such we should naturally suppose would be the fact in the case of man, the highest and the noblest work of the Creator, and where human agency and accountability have more to do than anywhere else in the world. Whereas an examination into the views and theories of most writers upon population shows, that the laws which they lay down for its increase have been controlled almost wholly by agents or objects entirely external to the body, and some of them holding only remote or indirect relations to it.

The standard of physiology upon which the laws of population are here based, is the same perfect organization of man as when he came from the hands of his Maker and was pronounced not only “very good,” but was commanded to “be fruitful and multiply, and replenish the earth and subdue it.” But by man’s course of disobedience and rebellion, he lost not only the moral image and likeness of his Creator, but that harmony and perfection in his physical organization which he has never yet regained.

This same balance or union of the temperaments constitutes the standard for the greatest amount of health, of longevity and strength that can ever be found in the human system. This is proved by the laws of physiology, as well as by facts gathered from experience, observation and history. This same organization presents the only perfect standard of beauty for the human form; for there is such a



standard founded in nature and represented by art—a perfect standard of beautiful figure for the eye, as well as of taste for the mind, when all its faculties are trained and cultivated to their highest degree. Accordingly whenever models of the best specimens of the race have been adduced, they have always exhibited this harmonious development of the human body. The Apollo Belvidere, the immortal work of the Greek chisel, and the Venus de Medicis, represent a well-balanced organization—all parts of the system in beautiful symmetry, the vital organs large, the limbs, the muscles, the bones, the blood-vessels, the nerves, distinct and clearly defined, nothing too strong, nothing too weak, nothing in excess, nothing deficient. But notwithstanding such a standard or model of human organization is set before us, the reality is nowhere to be found. No nation, or race, or tribe, or people upon the globe can present perfect living examples, containing all the organs of the body in a perfectly healthy and well-balanced state. They can only offer approximations to this standard.

Now, the human constitution as represented by these temperaments has been constantly varying in every age and with all classes of people. The causes of these changes originate partly within the body, and partly from external agencies and influences. They often change materially, and sometimes radically, with the same individual between the cradle and the grave. Slight changes in the organization do not affect much the physical or mental character of an individual or people; but when a certain class of organs or one of these temperaments, becomes very predominant, it has a most marked and sometimes serious effect.

We have dwelt somewhat at length upon the importance of this balance of organs, for it is the key not only to a sound constitution, perfect health and long life, but to the law of increase. Nearly all the diseases, pains and weaknesses of the body are but the result of deviations from this harmony, and an observance of the great laws of life and health looks towards restoring this balance. If, then, this balancing of all the organs in the body is found necessary for the greatest amount of health and longevity of the race, may it not become equally necessary for its increase? If only now and then a single individual in the community was found with a constitution badly diseased or imperfectly developed, its hereditary effects would not be very perceptible; but when large numbers or a majority are found so constituted, not more than one or two generations can possibly pass before such effects become marked and well known.

It is now generally believed to be in accordance with the laws of hereditary descent, that the *mother*, not the father, transmits the vitality, the stamina, the strength of the physical system to the child. It becomes, then, a question of the highest importance that women especially should have sound and well-balanced organizations. If the law of human increase is based upon physiology, it becomes doubly important that the organization of women should be as perfect as possible. For it is a law, running through the whole animal and vegetable creation, that an organization badly diseased or imperfectly developed, has a direct tendency to decline both in vitality and fruitfulness. And can a law that is here of so general application be made an exception in the case of the human race?

Now, the evidences of the general ill-health of the American—and particularly of the New England women—as gathered from travelers, newspapers, journals, medical works, and physicians, are so abundant, that they have nowhere been called in question. Many of the causes and effects of this ill health have been more or less discussed, but in no place has its connection with the increase of population been carefully considered. When the nature and peculiar character of these complaints are fully considered—and that many of them are not found so prevalent in any other part of the world—it is clearly evident that they interfere seriously with the laws of increase. And there are reasons to believe that these peculiar diseases and weaknesses are every year multiplying, so that, in process of time, they will have a still more powerful effect upon the increase of population.

It has long been the opinion of medical writers that married women on the whole, have better health and live longer than those in single life. And very recently Dr. J. Stark, of Edinburgh, proved this fact most conclusively from an examination on a large scale, of the Registration Reports of Scotland. It should be observed, that this fact is here demonstrated among a class of women somewhat distinguished for having large families, and might not hold good in a community where large numbers of married women have no children. The organization of woman, the history of her diseases, and the rate of mortality, demonstrate that married life and the production of children are one of the primary objects of her creation. Physiology, pathology and all history upon the great laws of life and health prove this beyond controversy as a general law. There may be exceptions to this general rule, but it is a law which God has made applicable to all races and nations; and whatever institutions, habits or practices



interfere with its execution, are abnormal, are deviations from the laws of nature and of God.

What, then, are the obvious teachings of Revelation in regard to marriage? These teachings may be presented by giving the views held both by the Episcopal and Catholic churches, which embrace the largest Christian denominations in the world. These views, professed to be derived from Revelation, are sustained not only by the greatest possible experience that can be obtained in the whole history of man, but are found to harmonize perfectly with the great laws of human organization. The propositions laid down in the marriage service of the Episcopal Church, state in these words, that this institution is ordained for three purposes—" (1) *the procreation and education of children* ; (2) *the avoidance of incontinence* ; and (3) *the mutual society, help and comfort of the married pair*." Any union of the sexes in which provision is not made for fulfilling every one of these purposes, or which fails in so doing, comes so far short of securing the great objects of this institution. To what precise extent either or all these points are met in the marriage relations of the present day, it might be difficult to decide.

By the great number of divorces occurring in this country, as well as from the increasing troubles in domestic life, it is quite evident that the laws of nature and of God, as here enjoined in marriage, are not very faithfully observed. Is there not good reason to believe that this institution is regarded too much at the present day by large numbers as a *mere partnership*, intended only for the comfort, convenience and interests of the parties forming it? In attempting any reform here, should we not come back to first principles, the laws of nature?

It is reported that there has been an alarming increase of vice and immorality in certain parts—especially in the large cities—of France and Germany, and it is found upon careful inquiry that these evils arise from breaking down the sacredness of the family institution, more than from any other source. Are there not agencies and influences operating here that in like manner threaten the security and permanency of this institution? The agitation which has sprung up within a few years with reference to the wrongs, the rights and the employments of women, presents questions complicated with domestic and public relations which are found most difficult and delicate to settle.

In the discussion of this great subject, and in the attempts to adjust the points of right and duty involved, it becomes necessary

to inquire what are the teachings of the laws of nature—the laws of life and health—not only of individuals, but *collectively of the race*? Here is a stand-point for canvassing this whole subject of vast importance. Any changes in the situation, employment and position of woman that shall tend to improve her general health, and perfect her physical organization, are certainly above all things most desirable—not merely for her own sake, but on account of the relations she may sustain to others. In determining just what these changes should be and to what extent they may be safely carried, the question arises at once, what will be their effect upon the organization and character of woman in respect to the institution of marriage and the perpetuation of the race? While some persons might prefer to carry on this discussion and reform without any regard to questions of this nature, no final adjustment of right and duty can here be permanently secured, except as based upon the great laws of the human constitution. God has so constituted his creatures that the laws of their own being cannot long be ignored or violated with impunity. The marriage and parental relations constitute the ground work, the foundation stones, the main pillars of all human society, and no changes should be countenanced or tolerated for a moment that tend in any way to weaken or destroy these relations. Admitting that the law of increase as here advocated is true, it presents new views of the highest importance as to all those means, influences and agencies that are calculated to change the organization and character of woman. This subject opens from this point of view a most inviting field for discussion, but the facts and arguments in proof of this law claim at the present time and on this occasion our more immediate attention, and must be presented in a brief or summary manner.

This theory is sustained directly by all the leading principles of Physiology. In a general sense, the laws of hereditary descent have always been admitted, though there may have been differences of opinion how far these influences extended. It is a fact, we believe, that the more carefully and thoroughly these laws have been investigated, the more uniformly and extensively have they been found to prevail. Now, this law of increase is but the perfecting or carrying out of these same hereditary tendencies. The more perfect the organization of the parent, the more perfect that of the offspring. The same kind of evidence that proves the existence of any hereditary agency at all, sustains also the law of human increase.

Again: Every organ or class of organs in the system must receive its proportion of nutrition. Dr. Carpenter, in his work on Physiology,



makes this statement: "There is a certain antagonism between the nutritive and reproductive functions, the one being exercised at the expense of the other. The reproductive apparatus derives the materials of its operations through the nutritive system, and its functions. If, therefore, it is in a state of excessive activity, it will necessarily draw off from the individual fabric some portion of the aliment destined for its maintenance. It may be universally observed that when the nutritive functions are particularly active in supporting the individual, the reproductive system is undeveloped, and *vice versa*." Here is a powerful argument from the highest physiological authority; and the statement so simple and plausible must commend itself to the common-sense and judgment of every person. Let any class of organs or portions of the body be unduly or excessively exercised, and it requires the more nutriment to support it, thereby withdrawing what naturally should go to other organs. Let any one of the temperaments become too predominant, and the others must suffer more or less. Let this be continued through two or three generations, and the evil becomes intensified. A negative argument may also be deduced from physiology. In all the works treating of "impotence" and "sterility," the causes are generally found to exist in a feeble or diseased state of some parts of the body, or to arise from the abuse of certain organs. Such causes are not often, if ever, found in a well developed and proportioned body, where, too, the laws of life and health have always been properly observed.

There is another class of facts that cannot be satisfactorily explained upon any other hypothesis. The sacred scriptures clearly intimate, that there is something wrong in the intermarrying of blood relations, and, by the laws of Moses, it was forbidden "within the third degree." Both the Greeks and Romans observed these facts, and proclaimed that such marriages were "prejudicial to the healthy propagation of the species." The Catholic church very early opposed it, and adopted a standing order or canon against all such alliances. A great number of facts have been gathered, both in Europe and in our own country, which prove that such marriages beget not only a class of the worst diseases and complaints, such as scrofula, consumption, epilepsy, deafness, idiocy, deformities of the body, etc., but, in many cases that they run out entirely in offspring, within two or three generations. Here is a class of facts that have been accumulating for over four thousand years, and have never yet received any satisfactory solution. They would never have been noticed in the scriptures, nor secured the attention they have, unless they origi-

nated from some fixed causes or laws existing in the constitution itself. These facts and causes can be rationally explained only upon such principles of physiology as are connected with this great law of increase. A similar collection of facts may be obtained from the history of families intermarrying, belonging to a particular class, moving in a certain circle, and possessing similar organization and character, such as the royal families of Europe, the patricians of Rome, the nobility of France, the peerage of England, &c. It is well known that in nearly all these orders, there has been as a whole, a marked tendency to degeneracy in their offspring, as well as to the entire extinction of these families. In our own country, we have no distinct orders or classes, but, in certain circles or localities, where the same families have intermarried more or less for several generations, there has been observed in their descendants a decided decay, as well as diminution of numbers. These facts find a ready explanation in the principles of physiology as here set forth.

Facts and arguments of the most convincing nature can be adduced in favor of this theory of population from the vegetable and animal kingdoms. The same general laws that govern all organic matter here, govern and control all the changes that take place in the human system. It is true there may be some points of variance and some modifications that are not strictly analogous, but, in the main, the general principles operating in these several departments are the same. The wonderful improvements and changes that have been brought about within a few years in domestic animals, have all been effected by the application of laws similar to what prevail in human physiology. We cannot enter here into detailed points of proof, but confidently assert that by a careful comparison and analysis, the law of increase here advocated will throw a flood of light upon certain parts of vegetable and animal physiology; while on the other hand facts deduced from these two departments of science afford the strongest possible evidence in proof of this same law of human increase.

This theory of increase receives strong proof from the history of three classes of people. *First*, from the most healthy and best-balanced organizations to be found, where the temperaments are nearest equally represented. According to our theory, such a class will have the greatest number of children, combined with the highest degree of strength, vigor and health. Such were the early settlers of New England; next perhaps may be reckoned the better portion of the Irish race, whether living in Ireland or America, together with



a middling class of the German, Scotch and English. It was the united sentiment of a learned body in Europe (expressed many years since), after a careful review and thorough discussion of the leading characteristics of different nations, that the "Scotch brain placed upon the Irish body furnished the best material for the highest order of physical and mental development to be found in the world." Many illustrations of this character may be found in the history of some portions of our own country.

In the *second* class where either the muscular, lymphatic, or sanguine temperament greatly predominates, few or no children are found. Here the nutrition goes mainly to support the body of the individual, and the merely animal nature becomes excessive. Such examples are rare in a highly civilized state of society, but abound among a savage or a barbarous people. It has always been observed that excessively fleshy people are not very prolific in offspring; and, nowhere in the history of the world can be found a tribe or race, living in a purely savage, barbarous state, leading a low, coarse, sensual, animal life, that has been at all fruitful in children through several successive generations. The laws of nature have wisely fixed limitations to the *increase* as well as prosperity of such a people.

The *third* class include the other extreme in society—those having a great predominance of the nervous temperament. Here the brain and nervous system prevail in excess, accompanied with a deficiency of the muscular and vital temperaments. This class is very numerous, and rapidly increasing under our present type of civilization. The brain and nervous system are exercised too much, compared with other parts of the body, and require for their support an undue proportion of nutrition and blood. In this class may be found some, especially women—who, commencing early in life, have been closely confined to books and literary pursuits; others, whose minds have always been kept under a severe pressure or strain from cares, anxieties, fashions or excitements of some kind; others still, who, inheriting a decided nervous temperament, and neglecting physical exercise, live luxuriously, and depend for their enjoyment very much upon the excitements of the day. All such women have few children, and find much difficulty in rearing what they do have.

There are certain agencies now operating upon society with great power, which are peculiarly adapted to develop and intensify this organization. Illustrations of this character may be found everywhere throughout the country, but are, perhaps, most strikingly manifest on a large scale in New England, especially in Massachu-

setts. Within fifty or one hundred years, there has been here a great change in the organization and character of females. Once they were generally mothers of large families, possessed strong, healthy constitutions, and lived to a good old age. Once they performed mostly their own housework—did not injure their bodies by fashion in dress, or have their brains and nerves racked by any high-pressure principle. But what a contrast do the women of this generation present to such examples?

The causes of this change arise principally from three sources, and the effects upon the constitution are so marked as to require a more particular description. *First cause*: a large proportion of domestic labor, particularly in cities, has now passed from the hands of New England women to foreign help—especially all that is hard and laborious. It is a law in physiology that exercise, and exercise alone, develops and strengthens the muscles; no kind of exercise whatever accomplishes this so readily and thoroughly as housework. As a consequence, principally of this neglect, the female constitution in those cases is reduced in vigor and strength; the muscles are soft and flabby, and cannot bear much hardship or exposure; there is a want generally of physical stamina and power of endurance.

The *second cause*: The fashions of the day or style of dress are directly calculated to change the form of the body—to displace the internal organs and interfere seriously with their functions. The compression of the chest and abdomen prevents the proper expansion of the lungs as well as oxygenation of the blood; it obstructs the natural action of the heart and healthy circulation of the vital fluid; it disturbs the healthy action of the stomach and bowels, tending to produce indigestion and costiveness; it depresses more or less all the internal organs—causing weakness and disease especially of those in the lower part of the pelvis—which seriously interfere with the great laws of reproduction. Not only the functions of these particular organs are injured, but the general health is sensibly impaired by it. The sanguine and lymphatic temperaments are thus not sufficiently developed to produce generally that amount of nutrition and vitality in the system so necessary for carrying on all the operations of nature. And by the laws of hereditary descent these weaknesses and inequalities are transmitted—in many instances very much intensified.

The *third cause* arises from the early, persistent and continued strain upon the brain and nervous system, to the neglect of other parts of the body. The girl is sent to school at the age of five or six, and kept there with short intermissions till sixteen or eighteen,



without much regard to physical exercise;—at a period in life—the only chance it has—when all parts of the body should have healthy growth, complete development and consolidation of strength. In the completion of her education, there may be found the highest order of social qualities, personal accomplishments, mental attainments and moral character, but engrafted upon a physical system entirely unfitted for domestic labor, for the practical duties and responsibilities of every day life, as well as for the fulfillment of the great laws of maternity. Besides, a large portion of the influences, arising at the present time, from society, fashions, amusements, reading, and various excitements of the day, are peculiarly adapted to increase and intensify this nervous temperament. It is true, while this same organization presents the highest type of refinement, taste, culture, piety, &c., it is at the same time accompanied with the most serious “drawbacks.” It illustrates the principle of Fourier, that “just in proportion as individuals or a community become perfected in civilization, in the same proportion the race inclines to run out;” but how this happens and upon what principles it depends, he did not tell us. The theory of human increase as based upon the laws of physiology explains this matter. It shows that God has set limits to the progress and perfectibility of man in this particular direction. Here is the danger or tendency of such a type of education, civilization and religion as prevails at the present day.

This great predominance of the nervous temperament is unfavorable in a variety of ways, to the increase of population. As a general rule, people highly educated and following pursuits that severely and continuously tax the brain and the nervous system, have fewer children than persons engaged in manual labor for a livelihood. It is a fact well established by history that neither men nor women distinguished for genius and literary attainments have ever as a class been prolific in offspring. Many examples of this kind could be adduced where such families have actually run out, and the name has become extinct.

This constant and excessive exercise of the brain and nerves, especially in woman, consumes all the vitality generated in her system from day to day, thereby withdrawing the stimulus and nutrition which should go to support other parts of the body. The vital temperament—including the lungs, the heart, and the digestive organs—has not sufficient development and strength to provide the requisite materials for healthy gestation. And then in case of bearing offspring, the frail, delicate organization of the mother easily breaks down and her constitution is used up in having one, two, or three children.

Besides such is the deficiency of the vital temperament that the nourishment which *nature* designed cannot be found for the child, and artificial means of support must be resorted to, which greatly endangers its life.

It is the opinion of some medical men of extended observation and who have made particular inquiries on this subject, that not more than *one-half* of our American women now nurse their children. Some will not do it; others cannot, having neither the organs nor the nourishment requisite for it, and large numbers who attempt it, can furnish only a partial supply. In confirmation of this statement, here is the answer to an inquiry made of the manufacturer of a new and high-priced nursing-bottle, just introduced to the market; his sales for the last year, he replies, amounted to "*five hundred gross*,"—that is 72,000, and in his judgment "the sale of nursing-bottles in the United States must amount yearly, all told, the cheap and the more expensive, to not less than *fifty thousand gross*." What a contrast do these facts present in the sale and use of this article as compared with the same fifty or one hundred years ago, when such a thing as a nursing-bottle was here scarcely known? Do not these facts argue some change not only in the disposition, but in the physical organization of woman?

Besides the great danger attending this artificial feeding, the child itself inherits the active brain and sensitiveness of the mother; the vital organs are all small; there is a want of arterial blood; the child naturally has a feeble hold of life, and great numbers of such infants die in spite of the best medical skill, nursing and care. When all these things are taken into account, the alarming infant mortality at the present day is not to be wondered at.

It may be said, perhaps, that this imperfect organization and these mental defects of character described here are wholly confined to New England; that, in the great West, with its large lakes and rivers, its boundless prairies and inexhaustible soil, no such evils exist. But is it so? And is there no danger? It is said, that the emigrants from New England to the West do better than those remaining at home. They should be more fruitful; as a class, they have more physical energy—more vitality and stamina of constitution. It is mainly this very organization that moves them to change their residence. And then, the influences of a new country as well as the inter-mixture by marriage, by association, by business, &c., of a people composed of different races and types of character, have always proved favorable to an increase of population. It undoubtedly holds good in the present instance.



But do no such evils as have been here portrayed threaten the West? Is there no danger in its high political excitements, its intense pressure of business, its rapid accumulations of wealth, &c., of injury to the physical organization? Is there no intemperance, no licentiousness, no kind of extravagance in living, nor form of fashion in society, nor modes of education, that constantly violate the laws of the human constitution? It certainly behooves the guardians of health, the conservators of good morals, as well as the cultivators of social science, to look well now to these things. As it is said "there is a tide in the affairs of men," so in the progress of social evils, when the seed is being sown or it is in a germinating process, they can be eradicated far easier than when full grown and sweeping everything around to destruction. What more pre-eminently appropriate for the friends of social science to investigate than the evils growing out of the violation of those great laws of life and health, involved in the increase of the human species? And are there not evils at the present day connected especially with our domestic relations and the marriage institution, that need investigation and correction? If the law of population here advocated is true, it presents not only new and most important views of the duties, obligations, and responsibilities of these relations, but *the right way* and *proper means* for their improvement. The inquiry naturally arises, what are to be the results of this change in organization, and what methods of reform can be suggested? It is frequently much easier to find out and describe clearly the nature of diseases, with their causes, than to ascertain remedies and prescribe medicines that will certainly cure them. There is another thing still more difficult, that is, to influence or compel people to follow up carefully and thoroughly all the prescriptions and directions necessary for relief and cure. It is particularly so here. In response to the above question, we propose to make a few suggestions.

Is there likely to be in New England an intermixture by way of marriage between those of foreign parentage and of those strictly American? We answer no, not in sufficient extent to remedy the evil. The reports of marriages in Massachusetts for thirty years—the allotted period of one generation—show but little increase of such marriages. In the advancing education and improvement of the foreign population, together with the constant changes in the habits, employments, and tastes of our own people, there will be naturally some intermixture, and perhaps an increase of such marriages; but then there are limits beyond which such connections will not extend.

There are great boundary lines in society, fixed in the very nature of things, by association, by families, by relationship, and, in the present case, especially by a radical difference in religion, which cannot easily be modified, certainly not obliterated.

To cure disease or remedy an evil, the cause must be removed. In the survey which we have made of the changes that have taken place in female organization in New England, the principal causes may be summed up under three distinct heads, viz:—1st, Neglect of physical exercise; 2nd, Fashions in dress; and 3rd, The too exclusive cultivation of the brain. It is the law of God that no human being can have a sound, vigorous body, accomplish much physically and enjoy long life, without *good muscles*. That these muscles be properly developed, their exercise must be commenced early, and be carefully trained when the system is in a state of growth. *Exercise*, and *exercise* alone, can do this. The girl must practice the lighter gymnastics of domestic labor, and be thoroughly and practically trained in all household duties. In this way she would obtain not only a good physical development, but a preparation for some of the most important duties of life, which neither books, schools nor accomplishments can ever furnish. Connected with this improved muscular development, and knowledge of domestic duties, there would be other advantages of great value, such as more perfect health, curtailment in family expenses, and a capability in every respect of fulfilling more satisfactorily those most responsible, but yet happy, relations in life—those of wife and mother. Though there is a variety of ways by which exercise can be obtained, yet domestic labor is altogether the most important and best adapted to develop and strengthen the whole system. Within a few years much interest has been awakened upon the subject of physical exercise, particularly as connected with schools and seminaries of learning. Besides the outdoor exercise and games, calisthenics and gymnastics have been introduced inside the school-room, and are becoming a part of the regular exercises in many institutions. This is an improvement in the right direction—is good as far as it goes—but is entirely inadequate to meet fully the demands of nature. No kind of exercise for girls is so well calculated as household work to develop *all the muscles* of the body—to do it in early life, and gradually under circumstances favorable to health generally. The girl and young woman must thus be trained year after year, otherwise she will never obtain that hardihood of constitution—that strength of muscles—that power of endur-



ance, or in other words, that balance of temperaments so essential to good health and happiness, in all the social and domestic relations of life.

To restore the balance in woman of the vital temperament, or the sanguine and lymphatic, is not an easy thing. The power of fashion in dress is almost omnipotent. Judging by the past only, any prospect of much or great improvement in this respect, is rather discouraging. Still, ignorance, pride and vanity, must gradually give way to self-interest, to knowledge and sense of duty. There have been, within a few years, improvements in two respects: with some women there is certainly less compression of the chest, and better protection of the feet. But there is room for still greater improvement in this direction.

For the proper and healthy development as well as exercise of the lungs and the heart, together with the digestive organs, *that pressure* upon the chest and abdomen so generally practiced by females, must be removed; otherwise a due proportion of the vital temperament in woman never can be restored; otherwise it is absolutely impossible for her to maintain a perfectly healthy organization herself, or give proper vitality and strength of constitution to her offspring.

There is another practice in the present style of dress, which is most injurious to female health. We refer to the unequal protection in clothing to different parts of the body—that the trunk receives a far greater amount of clothing than the extremities. In the case of girls—especially of those fashionably dressed—the arms and legs, and sometimes, the upper part of the chest—are very slightly protected, compared with the body. This same fact holds good with a great majority of women, particularly in fashionable life.

What, now, is the effect of this difference in clothing, when considered in view of the sudden changes of weather and the long, cold winters, to which we are exposed? It violates some of the most important laws of physiology. It tends directly to prevent the natural and healthy circulation of the blood in large portions of the surface of the system, as well as to the hands and feet—to the arms and legs. It tends at the same time to retain, not only an undue proportion of blood in the body, but to cause, much of the time, a congested state of this blood in the vital organs, which is well known to medical men to be very productive of disease. With the many sudden changes of heat and cold that exist in our climate, such a style of dressing must produce corresponding changes in the temper-

ature as well as in the circulation of the blood, and interfere also in other respects with the free and natural action of the lungs and the heart. Let such a practice be continued by females for years, and at the most important period in life, too, and its influence must prove most unfavorable to their physical development and health.

There are two other topics having an immediate bearing upon this change in female organization, which deserve notice here, though not connected so directly with fashion in dress, as in the manner of living—one has reference to the heart and the lungs, the other to the organs below the diaphragm. In consequence of the great improvements in the construction of dwellings—in the introduction of stoves, furnaces, and steam, for heating purposes—the air now breathed much of the time in our houses, is not as good as that used fifty or one hundred years ago. The women of our day spend most of their time in-doors, and do not begin to take so much exercise out of doors as our mothers and grandmothers did; neither do they compare, in this respect, with the women of the best European nations. This change in reference to the laws of ventilation, has had a most injurious effect in the development of the lungs and the heart, as well as upon public health.

The other topic referred to, and which has had an exceedingly unfavorable effect upon female health, is the very general use of fine flour bread. A great change has occurred between the present and former generations in the use of this article; and probably nowhere in the world are the finest brands of flour so generally sought and extensively used, as in our country. When such bread becomes the principal article of diet, is consumed warm or newly baked, accompanied with strong tea or coffee, and with little physical exercise, its general effect is to produce dyspepsia, indigestion and costiveness. It is well known that these are very common complaints among American women; and, without dwelling upon the pains and evils of dyspepsia, this very general costive habit is productive, in our women, of an untold amount of ill-health and positive disease. Connected with this evil, and partly growing out of it, is the constantly increasing practice of depending more and more upon tea and coffee, with high-seasoned and stimulating food, instead of supporting the body with plain, nutritious diet. Within a few years, there has been a surprising increase among our American people, in the use at the table of condiments and spices, as well as stimulants. For instance, thirty or forty years ago, the cayenne pepper or capsicum, was imported into the United States in small quantities, and



used almost exclusively for medical purposes; but where one bag was then bought, hundreds, if not thousands are now imported, and employed in a variety of forms as condiments for the table. It would seem as though the more stimulating, the more heating and fiery the article was, the better it suited the demands of the modern stomach. In such cases, the mucous membrane of this organ must be kept most of the time in an irritable and inflamed state, similar in some respects to the effects of alcohol; and like the use of ardent spirits, the more the stomach has such stimulants, the more it wants them and imperatively demands them.

Such a course of diet tends directly to develop more and more a nervous temperament, and, on the other hand, such an organization in its very nature, demands and will have these very stimulants. Here we have cause and effect interchanged, so that an abnormal state of the system serves thus to perpetuate itself more and more. This peculiarity in the relation of cause and effect, constitutes a leading obstacle in the way of changing the nervous temperament, or arresting the agencies that are most active in its development. In order to effect a reform, there must be some change in the causes producing this state of things. Education, as it is now conducted, has been one of the most powerful agents in bringing about this predominance of the nervous system in women. The great mistake has been in the too exclusive cultivation of the brain at the expense of all other parts of the body. Some writers and teachers have urged on female education, and advocated a higher and higher range of studies, without any regard to the physical system; others have almost spurned the idea that the body was of any account whatever—that the mind alone possessed value and required cultivation. Time may prove that what has been, in some respects, our boast and glory, may yet become our shame and curse. Such is the connection of the body with the mind, that a proper development of the former is indispensable in this world for the highest manifestations of the latter. The laws that govern the one, are just as much a part of the laws and will of the Creator, as those that govern the other; and God will not allow these physical laws always to be violated with impunity. If pains and sufferings, weaknesses and ill-health, sickness and premature deaths, are not sufficient admonitions that there are penalties attached to these laws, the gradual diminution and final extinction of the race will demonstrate this great fact. The leading agencies and controlling influences in society are operating powerfully in this direction, and should they continue and in-

crease, as they have for the past fifty or one hundred years, the most surprising changes will take place.

In no one thing in our community is there so much need of change or reform as in female education. Our girls are now put to school too early—are confined in the school-room too many hours—have too many different studies, and in their whole course of education are urged on, in a variety of ways, by motives and appeals altogether too stimulating and exciting for their organization. The most intelligent members of the medical profession, and professed teachers themselves, who have carefully considered the subject, have remonstrated over and over, against the present practices. But their exposures, remonstrances, and appeals, have had apparently but little influence.

If half the time of girls, between the ages of eight and eighteen, was spent in obtaining a thorough knowledge of every department of household duties, or of some suitable trade or business, how vastly better qualified would they be, not only in the most important matter of physical health and sound constitution, but in other desirable preparations, for performing the great duties of life? As education is now conducted, while it improves the mental faculties and furnishes the mind with stores of knowledge, how generally does this very training serve to increase the misery, the unhappiness, and suffering, of females in all their future life? It does this by cultivating a predominance of the nervous temperament, without enough of the muscular and vital to support it—by a knowledge of books merely, without any experience in domestic duties or other pursuits—in fact, by cultivating the mental faculties to a high degree, without the ability, the means or resources, to gratify them. It may be said, we have plenty of help at our own doors, in the foreign population, and that there is no necessity of our girls and women applying themselves to the dull routine and drudgery of domestic labor. Thus, our female friends at the South reasoned for several generations, living in comparative indolence, despising labor, devoted to a fashionable and extravagant course of life, till now a thorough reconstruction is needed in that portion of society, almost as much as in governmental affairs. If domestic labor is to be given up more and more, if physical exercise continues to be generally neglected by our girls, and this predominance of the nervous system in our women goes on increasing, a worse curse in time, we fear, will overtake us, than ever followed negro slavery.



There is one way in which a reform in this matter may be effected, or at least commenced. Let the true nature and object of marriage be better understood, in accordance with natural laws—in the physical qualifications and adaptations of parties entering it—in a proper knowledge of the duties and responsibilities growing out of this relation. Let the qualities most sought for in marriage, be changed: instead of the slender form, the small waist, the accomplishments of a fashionable education, the choicest decorations of the person—let a well-developed body, good health, a sound constitution, a practical knowledge of domestic duties, be the qualities most preferred—the *indispensable pre-requisites*. We should then have an increase of healthy offspring, less discontent in the family, a far less number of divorcees, and a more perfect union between the husband and the wife, in all their interests, comforts, and happiness in life.

It may be said, that this change in the law of human increase, and other evils, which have here been referred to, are a necessary part of an advancing civilization, and grow, in the nature of things, out of the present artificial state of society; and that such is their origin, growth and necessity, that no reform or improvement can easily be made. But these have been brought about entirely by human agency—principally by a violation of the great laws of life and health. Such evils have never before been found a part of the civilization of any race or nation, unless we except the Roman empire. And what is here the testimony of history from the highest living authority? Prof. Seeley, of Oxford University, England, after a most thorough analysis of the real causes of the downfall of the Roman empire, says, in a recent treatise:—"The immediate and patent cause of the fall of the empire was, that want of population which made it impossible to keep up a native army, and which caused a perpetual and insuppressible stream of barbaric immigration." And the want of this population, says he, arose from three causes:—"Infanticide," "Aversion to marriage," and "The general reluctance to rear families." This Empire flourished between four and five hundred years, but the evils here enumerated commenced near the close of the second century,—increased during the third, and culminated before the expiration of the fourth in the downfall of the nation. Shall the purely *native* population of our country—especially of New England—follow in the footsteps of the Roman Empire, and meet with a similar fate?

Is such the type of our education, our civilization, and christianity, that these evils must necessarily exist and cannot be remedied? If our civilization is such as tends to destroy or weaken those two great relations—the matrimonial and parental—which lie at the foundation of all society, is it not time for some change or reform?

It is less than two hundred and fifty years since our Puritan ancestors settled here, and nearly all these evils have sprung up within fifty years. The English nation has now been steadily advancing in population and all the elements of civilization for over a thousand years, and never was more prosperous than at the present time. The ancient Greeks, without the gospel—the greatest civilizing power ever known—could flourish as a people for over two thousand years. A longer career of prosperity and a nobler destiny should await our native American people. Let these evils be exposed and discussed, as they ought to be, in public and in private, in the family circle and on the rostrum, by the pulpit and by the press, and the people will prove not only loyal to government, but obedient to the laws of their own being, as well as those of the Creator.

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NOTE.—The above paper, with some slight corrections, is here published, just as presented on the occasion referred to. At that time it was expected that the Papers read at the Social Science meeting in Chicago would be published in a volume, which has not as yet been done; and this accounts in part for the delay, and manner of the publication of this paper at the present time.

N. A.

LOWELL, April, 1st 1870.







